# Calcium Phosphate Tribasic

## Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

**Date of issue:** 06/01/2015  
**Revision date:** 06/07/2018  
**Supersedes:** 10/02/2015  
**Version:** 2.0

## SECTION 1: Identification

### 1.1. Identification

<table>
<thead>
<tr>
<th>Product form</th>
<th>Substance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Substance name</td>
<td>Calcium Phosphate Tribasic</td>
</tr>
<tr>
<td>CAS-No.</td>
<td>12167-74-7</td>
</tr>
<tr>
<td>Formula</td>
<td>Ca₅(OH)(PO₄)₃</td>
</tr>
</tbody>
</table>

### 1.2. Recommended use and restrictions on use

Use of the substance/mixture: Nutrient; Dietary Supplement; Pharmaceuticals

### 1.3. Supplier

**Manufacturer**

Jost Chemical Co.  
8150 Lackland Rd.  
Saint Louis, Missouri 63114  
T 314-428-4300 - F 314-428-4366  
sds@jostchemical.com - www.jostchemical.com

### 1.4. Emergency telephone number

Emergency number: For Hazardous Materials [or Dangerous Goods] Incident Spill, Leak, Fire, Exposure, or Accident  
Call CHEMTREC Day or Night  
United States and Canada: 1-800-424-9300 / +1 703-527-3887  
Global: +1 703-741-5970

## SECTION 2: Hazard(s) identification

### 2.1. Classification of the substance or mixture

**GHS-US classification**

Not classified

### 2.2. GHS Label elements, including precautionary statements

**GHS-US labeling**

No labeling applicable

### 2.3. Other hazards which do not result in classification

No additional information available

### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

<table>
<thead>
<tr>
<th>Substance type</th>
<th>Substance</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS-US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mono-constituent</td>
<td>Calcium Phosphate Tribasic (Main constituent)</td>
<td>(CAS-No.) 12167-74-7</td>
<td>100</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

Full text of hazard classes and H-statements: see section 16

### 3.2. Mixtures

Not applicable

## SECTION 4: First-aid measures

### 4.1. Description of first aid measures

- **First-aid measures general**: If you feel unwell, seek medical advice.
- **First-aid measures after inhalation**: Remove person to fresh air and keep comfortable for breathing. Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.
- **First-aid measures after skin contact**: Rinse with water. Take victim to a doctor if irritation persists. Wash skin with plenty of water.
- **First-aid measures after eye contact**: Rinse with water. Remove contact lenses, if present and easy to do. Continue rinsing. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists. Rinse eyes with water as a precaution.

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4.2. Most important symptoms and effects (acute and delayed)
Potential Adverse human health effects and symptoms: Slightly harmful if swallowed. Slightly harmful in contact with skin. Not irritant to skin. Slightly harmful by inhalation. Slightly irritant to respiratory organs. Slightly irritant to eyes.
Symptoms/effects after inhalation: AFTER INHALATION OF DUST: Irritation of the respiratory tract. Irritation of the eye tissue. Coughing.
Symptoms/effects after eye contact: Redness of the eye tissue.

4.3. Immediate medical attention and special treatment, if necessary
Treat symptomatically.

SECTION 5: Fire-fighting measures
5.1. Suitable (and unsuitable) extinguishing media

5.2. Specific hazards arising from the chemical
Fire hazard: Non combustible.
Explosion hazard: No data available on direct explosion hazard. No data available on indirect explosion hazard.
Reactivity: The product is non-reactive under normal conditions of use, storage and transport.

5.3. Special protective equipment and precautions for fire-fighters
Precautionary measures fire: Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: have neighborhood close doors and windows.
Firefighting instructions: Dilute toxic gases with water spray.

SECTION 6: Accidental release measures
6.1. Personal precautions, protective equipment and emergency procedures
6.1.1. For non-emergency personnel
Emergency procedures: Ventilate spillage area. Mark the danger area. Prevent dust cloud formation, e.g. by wetting. No naked flames.
Measures in case of dust release: In case of dust production: keep upwind. Dust production: have neighborhood close doors and windows.

6.1.2. For emergency responders
Protective equipment: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions
Avoid release to the environment.

6.3. Methods and material for containment and cleaning up
For containment: Contain released product, pump into suitable containers. Plug the leak, cut off the supply. Knock down/dilute dust cloud with water spray.
Methods for cleaning up: Mechanically recover the product. Prevent dust cloud formation. Scoop solid spill into closing containers. Clean contaminated surfaces with an excess of water.
Other information: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections
For further information refer to section 13.

SECTION 7: Handling and storage
7.1. Precautions for safe handling
Precautions for safe handling: Ensure good ventilation of the work station. Wear personal protective equipment. Keep away from naked flames/heat. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Comply with the legal requirements. Clean contaminated clothing.
Hygiene measures: Observe normal hygiene standards. Keep container tightly closed. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures: Does not require any specific or particular technical measures.

Storage conditions: Store in a clean, dry warehouse in the original unopened containers. Store in a well-ventilated place. Keep cool.

Heat-ignition: KEEP SUBSTANCE AWAY FROM: heat sources.

Information on mixed storage: KEEP SUBSTANCE AWAY FROM: (strong) acids. oxidizing agents.

Storage area: Store in a dry area. Meet the legal requirements.

Special rules on packaging: SPECIAL REQUIREMENTS: closing. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.

Packaging materials: SUITABLE MATERIAL: cardboard. synthetic material.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Calcium Phosphate Tribasic (12167-74-7)</th>
<th>DNEL</th>
<th>PNEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>DNEL</td>
<td>4.07 mg/m³ Long-term - systemic effects, inhalation, workers</td>
<td></td>
</tr>
<tr>
<td>PNEC</td>
<td>50 mg/l Sewage treatment plant</td>
<td></td>
</tr>
</tbody>
</table>

8.2. Appropriate engineering controls

Appropriate engineering controls: Ensure good ventilation of the work station.

Environmental exposure controls: Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:


Materials for protective clothing:

GIVE GOOD RESISTANCE: latex

Hand protection:

Gloves

Eye protection:

Safety glasses. In case of dust production: protective goggles. Safety glasses

Skin and body protection:

Protective clothing

Respiratory protection:

Dust formation: dust mask

Personal protective equipment symbol(s):

![Personal Protective Equipment Symbols]

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| Physical state | Solid |
| Appearance | White ultrafine powder. White ultrafine granules. |
| Color | White |
| Odor | Odorless |
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<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>6.8 (20 %)</td>
</tr>
<tr>
<td>Melting point</td>
<td>1670 °C</td>
</tr>
<tr>
<td>Freezing point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Boiling point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Relative evaporation rate (butyl acetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Non flammable</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapor density at 20 °C</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Relative density</td>
<td>3.1</td>
</tr>
<tr>
<td>Specific gravity / density</td>
<td>3140 kg/m³</td>
</tr>
<tr>
<td>Molecular mass</td>
<td>502.31 g/mol</td>
</tr>
<tr>
<td>Solubility</td>
<td>Insoluble in water. Substance sinks in water. Soluble in hydrogen chloride. Water: insoluble, Literature</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosion limits</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No data available</td>
</tr>
</tbody>
</table>

### 9.2. Other information

- VOC content: 0 %
- Other properties: Substance has neutral reaction.

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

#### 10.2. Chemical stability

Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

#### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

#### 10.5. Incompatible materials

No additional information available

#### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

- **Acute toxicity (oral)**: Not classified (Based on available data, the classification criteria are not met)
- **Acute toxicity (dermal)**: Not classified
- **Acute toxicity (inhalation)**: Not classified

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
<td>&gt; 10000 mg/kg (Rat)</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
<td>&gt; 7940 mg/kg (Rabbit)</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Not classified (Based on available data, the classification criteria are not met) pH: 6.8 (20 %)</td>
</tr>
</tbody>
</table>

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Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met)
  pH: 6.8 (20 %)
Respiratory or skin sensitization : Not classified (Lack of data)
Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity : Not classified (Lack of data)
Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)
Specific target organ toxicity – single exposure : Not classified (Based on available data, the classification criteria are not met)
Specific target organ toxicity – repeated exposure : Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard : Not classified (Based on available data, the classification criteria are not met)
Viscosity, kinematic : No data available
Likely routes of exposure : Skin and eye contact.
Potential Adverse human health effects and symptoms : Slightly harmful if swallowed. Slightly harmful in contact with skin. Not irritant to skin. Slightly harmful by inhalation. Slightly irritant to respiratory organs. Slightly irritant to eyes.
Symptoms/effects after inhalation : AFTER INHALATION OF DUST: Irritation of the respiratory tract. Irritation of the eye tissue. Coughing.
Symptoms/effects after eye contact : Redness of the eye tissue.

SECTION 12: Ecological information

12.1. Toxicity
Ecology - general : Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008.
Ecology - air : Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009).
Ecology - water : No water pollutant (surface water). May cause eutrophication. Insufficient data available on ecotoxicity.

12.2. Persistence and degradability
Calcium Phosphate Tribasic (12167-74-7)
<table>
<thead>
<tr>
<th>Persistence and degradability</th>
<th>Biodegradability: not applicable.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biochemical oxygen demand (BOD)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Chemical oxygen demand (COD)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>ThOD</td>
<td>Not applicable</td>
</tr>
<tr>
<td>BOD (% of ThOD)</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

12.3. Bioaccumulative potential
Calcium Phosphate Tribasic (12167-74-7)
| Bioaccumulative potential | No bioaccumulation data available. |

12.4. Mobility in soil
No additional information available

12.5. Other adverse effects
No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods
Waste treatment methods : Dispose of contents/container in accordance with licensed collector’s sorting instructions.
Product/Packaging disposal recommendations : Remove for physico-chemical/biological treatment.
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SECTION 14: Transport information

Department of Transportation (DOT)
In accordance with DOT
Not regulated

Transportation of Dangerous Goods
Proper Shipping Name (Transportation of Dangerous Goods) : Not regulated for transport

Transport by sea
Proper Shipping Name (IMDG) : Not regulated for transport

Air transport
Proper Shipping Name (IATA) : Not regulated for transport

SECTION 15: Regulatory information

15.1. US Federal regulations
Calcium Phosphate Tribasic (12167-74-7)
Not listed on the United States TSCA (Toxic Substances Control Act) inventory

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory except for:

<table>
<thead>
<tr>
<th>Material</th>
<th>CAS-No.</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium Phosphate Tribasic</td>
<td>12167-74-7</td>
<td>100</td>
</tr>
</tbody>
</table>

15.2. International regulations
CANADA
No additional information available

EU-Regulations
No additional information available

National regulations
No additional information available

15.3. US State regulations
California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

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NFPA health hazard : 1 - Materials that, under emergency conditions, can cause significant irritation.

NFPA fire hazard : 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.
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Hazard Rating
- Health: 1 Slight Hazard - Irritation or minor reversible injury possible
- Flammability: 0 Minimal Hazard - Materials that will not burn
- Physical: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.